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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/976,199	10/11/2001	Robert C. Sundahl	42390P9821	1431

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EXAMINER

LUU, MATTHEW

ART UNIT	PAPER NUMBER
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2672

DATE MAILED: 11/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

KS

Office Action Summary

Application No.

09/976,199

Applicant(s)

SUNDAHL ET AL.

Examiner

LUU MATTHEW

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on the amendment filed 25 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 20-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-4, 10-13, and 15-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Shen et al (6,414,661).

Regarding claim 1, Shen discloses (Figs. 1-3 and 9) a method for at least partially compensating luminance of an emissive display comprising:

estimating the amount of degradation of one or more organic light emitting diodes (OLEDs) included in the emissive display (column 7, lines 19-27); and

adjusting the luminance of the one or more OLEDs based, at least in part, upon the estimate (see Abstract, lines 1-14).

Regarding claim 11, note the rejection as set forth above with respect to claim 1. Shen further discloses (Fig. 9) one or more OLEDs (display 93); a measurement circuit (voltage sensing 94); and a control system (control 97). Shen further discloses estimating the amount of degradation of one or more organic light emitting diodes (OLEDs) included in the emissive display (column 7, lines 19-27); and adjusting the luminance of the one or more OLEDs based, at least in part, upon the estimate (see Abstract, lines 1-14).

Regarding claims 2 and 12, Shen further discloses wherein adjusting comprises adjusting the luminance so that the luminance remains substantially constant substantially independent of the amount of degradation of the one or ore OLEDs. See Abstract, lines 12-14, "The compensation system is best used after the display device has been calibrated to provide uniform light output."

Regarding claim 3, 4, 13 and 15-17, Shen discloses (Fig. 9) the measuring the voltage across one or more OLEDs (column 7, lines 50-61).

Regarding claim 10, Shen discloses estimating the amount of degradation of one or more organic light emitting diodes (OLEDs) included in the emissive display (column 7, lines 19-27); and

adjusting the luminance of the one or more OLEDs based, at least in part, upon the estimate (see Abstract, lines 1-14).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-7, 14 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shen et al (6,414,661).

Regarding claims 5 and 14, 18 since Shen mentions that the calculation is based on either in the amount of the drive current or voltage (see abstract, lines 7-13), it is obvious to a person of ordinary skill in the art to recognize that the calculation can be in term of the measured reverse bias resistance since it is well-known that the resistance is proportional to the current or voltage.

Regarding claim 6, since Shen mentions that the calculation is based on either in the amount of the drive current or voltage (see abstract, lines 7-13), it is obvious that the calculation can be in term of the electrical energy since the energy is well-known to be calculated using the known current or voltage.

Regarding claim 7, Shen mentions that the calculation is based on either in the amount of the drive current or voltage (see abstract, lines 7-13).

Claim Rejections - 35 USC § 103

Claims 8-9 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shen (6,414,661) in view of Jane (6,229,508).

Regarding claim 8, Shen fails to disclose the step of adjusting using a look up table (LUT).

However, Kane discloses the method of adjusting the brightness of the OLEDs using a look up table (LUT) (column 17, lines 6-15). It would have been obvious to the person of ordinary skill in the art to use the look up table of Kane into the luminance adjusting system of Shen since this is only another alternative way of using the look up memory or a storage medium to adjust the voltage values.

Regarding claim 9, Shen further discloses the luminance of the OLED achieved by the adjustment essentially decreases over time. See column 7, lines 15-18; and column 8, lines 35-40.

Regarding claim 19, note the rejection as set forth above with respect to claim 8.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

-Dehmlow (6,552,735), Feldman (6,501,230), and Weindorf et al (6,388,388) disclose the luminance or brightness control system in a OLEDs display device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUU MATTHEW whose telephone number is (703) 305-4850. The examiner can normally be reached on 9 hrs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RAZAVI MICHAEL can be reached on (703) 305-4713. The fax phone

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number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

A handwritten signature in black ink, appearing to read 'Matthew Luu', with a stylized flourish at the end.

M. Luu

MATTHEW LUU
PRIMARY EXAMINER